

IN THE SPECIFICATION

Page 4, line 30 replace "~~Closer description of the figures~~" with

- Brief Description of the Figures- -

Replace the 4th paragraph which begins on page 19 and ends on page 20, with the following

- cDNA was made from 250 ng of the isolated poly A⁺ RNA using SMART™ PCR cDNA Library Construction kit (Clontech) according to the protocol recommended by the manufacturer. In brief, 1st strand cDNA was made by combining 250 ng A⁺ RNA with 10 pmol SMART oligonucleotide (5'-TACGGCTGCGAG AAGACGACAGAAGGG-3') (SEQ ID NO:8) and 10 pmol CDS/3' PCR primer (Oligo(dT)30 N-1N (N=A, G, C, or T; N-1 = A, G, or C or T)) in a final volume of 5 µl, and incubated at 72°C for 2 min and then placed directly on ice for 2 min to denature the RNA. Then enzyme and buffer were added to the reaction mixture to a final volume of 10 µl, consisting of 50 mM Tris/HCl. pH 8.3, 6mM MgCl₂, 75mM KCl, 2mM DTT, 1mM dATP, dCTP, dGTP and dTTP respectively and 200 U SuperScript™ II reverse transcriptase (Gibco BRL), and then incubated at 42°C for 1h. Synthesis of 2nd strand was done by PCR in a final volume of 100 µl, containing 2 µl of the 1st strand reaction as template, 40 mM Tricine/KOH pH 9.2 (25°C), 15 mM KOAc, 3.5 mM Mg(OAc)₂, 3.75 µg/ml BSA, 0.2mM of dATP, dCTP, dGTP and dTTP respectively, 1U Advantage cDNA Polymerase Mix (Clontech), 0.2 µM 5'-PCR primer (5'-TACGGCTGCGAG AAGACGACAGAA TACGGCTCCGAGAAGACGACAGAA-3') (SEQ ID NO:9) and CDS/3'-PCR primer respectively.- -

Replace the 3rd paragraph which begins on page 20 and ends on page 21, with the following

- Degenerated oligonucleotide primers were designed from two conserved regions (GQDPYH and VFLLWG) from known UNG- amino acid sequences. Codon usage for Atlantic cod were also considered when designing the primers. The UNG fragment was generated by PCR with cod liver cDNA as template in a final volume of 50 µl, containing 10 mM Tris/HCl pH 9.0 (25°C), 50 mM KCl, 0.1% Triton X-100, 10 ng cDNA, 0.2 mM dATP, dCTP, dGTP and dTTP

respectively, 2.0 μ M upstream primer (5'-GGH-CAR-GAY-CCC-TAY-CA-3') (SEQ ID NO:10) and downstream primer (5'-DCC-CCA-SAG-SAG-RAA-VAC-3')¹ (SEQ ID NO:11) respectively and 2.5 U Taq-polymerase (Promega). PCR was carried out by at 94°C for 4 1 min, ~~30 cycles of 94°C for 1 min~~, 60°C for 1 min and 72°C for 1 min, and a final extension step of 72°C for 5 min.- -

Replace the 4th paragraph beginning on page 21 and ends on page 22 with the following

- -The sequence deduced from the 300 bp fragment of the UNG-gene was used to design two primers for both 3'- and 5'- rapid amplification of cDNA ends (RACE), with a small overlap region between the two fragments generated. Both 3'- and 5'- RACE reactions were done in a volume of 50 μ l with 1 μ l of diluted cDNA with RACE-adaptors as template, 0.2 μ M internal 3'-(5'-TGTACCGACATTGATGGCTTCAAGCAT-3') (SEQ ID NO:12) or 5'-(5'-CCCATCCGCTTAGATCTCCATGTCCAG-3') (SEQ ID NO:13) RACE primers, respectively, 0.2 μ M AP1-primer (supplied by manufacturer) (5'-CCATCCTAATACGACTCACTATAGGGC-3') (SEQ ID NO:14), 40 mM μ M Tricine/KOH pH 9.2 (25°C), 15 mM KOAc, 3.5 mM Mg (OAc)₂, 3.75 μ g/ml BSA, 0.2 mM of each dATP, dCTP, dGTP and dTTP and ~~4U~~ 10U Advantage cDNA Polymerase Mix (Clontech). Amplification was done in a GeneAmp 9700 thermocycler (Perkin Elmer), 94°C for 30 sec followed by 5 cycles of 94°C for 5 sec and 72°C for 3 min, 5 cycles of 94°C for 5 sec and 70°C for 3 min, and 20 cycles of 94°C for 5 sec and 68°C for 3 min.- -

Replace the 1st paragraph beginning on page 25, line 1 with the following

- -rcUNG Δ 81o: (5'-ATGGAATTCTTCGGAGAGACTTGGCGTCGTGAGCTGGCTGC-3') (SEQ ID NO:20) and UDGEN2 and 10 ng cDNA as template.- -

Replace the 2nd paragraph beginning on page 27, line 11 with the following

- -Nucleotide sequences as well as three-letter code amino acid sequences for cUNG1 and cUNG2, respectively are given in the enclosed

Sequence listings, SEQ:ID:NOS 1 and 2, ~~3 and 4~~. - -

Replace the 3rd paragraph beginning on page 29, line 13 with the following

- -OP5:

5'-

TCTCTCGAGAAAAGAGAGGCTGAAGCTCCCATTGACGATGAGGATG

A-3 (SEQ ID NO: 21). - -

Replace the 4th paragraph beginning on page 29, line 16 with the following

- -NP2:

5'-GTAGAATTCGGATCCATGTCTCCTCCAGTCTAGAT-3' (SEQ ID NO:22)- -